UNIVERSITY OF WOLVERHAMPTON

Course Specification

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Status:	Course currently being validated

Core Information

Awarding Body / Institution:	University of Wolverhampton		
School / Institute:	School of Pharmacy and Life Sciences		
Course Code(s):	BM061H01UM BM061H31UM	Full-time Part-time	3 Years 6 Years
UCAS Code:			
Course Title:	BSc (Hons) Medical Physiology and Diagnostics		
Hierarchy of Awards:	Bachelor of Science with Honours Medical Physiology and Diagnostics Bachelor of Science Medical Physiology and Diagnostics Diploma of Higher Education Medical Physiology and Diagnostics Certificate of Higher Education Medical Physiology and Diagnostics		
Language of Study:	English		
Date of DAG approval:			
Last Review:			
Course Specification valid from:			
Course Specification valid to:			

Academic Staff

Course Leader:	Dr Janine Fletcher
Head of Department:	

Course Information

Location of Delivery:	University of Wolverhampton
Category of Partnership:	Standard Provision (Not delivered in partnership)
Teaching Institution:	University of Wolverhampton
Open / Closed Course:	This course is open to all suitably qualified candidates.

Entry Requirements:

Entry requirements are subject to regular review. The entry requirements applicable to a particular academic year will be published on the University website (and externally as appropriate e.g. UCAS

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GCSE English and Maths at grade C+/4 or above. Equivalences are accepted.

PLUS, EITHER

A Level minimum of AA or CCC (96 UCAS points) to preferably include Biology.

BTEC L3 Extended Diploma or OCR Cambridge L3 Technical Extended Diploma in Applied Science - grades MMM.

Access to HE Diploma Full Award (60 credits), with 45 Level 3 credits of which 36 must be in science, with at least 27 at Distinction and the rest at Merit.

T Level: Science, Healthcare Science at grade P

Completion of a foundation year at university in a relevant subject area.

You may be requested to complete a Disclosure and Barring Service (DBS) and Occupational Health assessment if you complete a sandwich placement.

Students must usually have studied for a minimum of two years post GCSE level. However, we will consider applications from mature students who do not have two years of post-16 study, where they have relevant work experience.

Distinctive Features of the Course:

The Medical Physiology and Diagnostics course is specifically designed for those who want to become specialised in either cardiac or respiratory physiology, learning about pathophysiological changes, diagnosis and therapeutic options. During this degree you will learn about technologies and physiological measurement techniques relevant to your chosen specialism, develop an understanding of how physiological data is generated and the importance of accurately interpreted clinical data to inform clinical decision-making and patient care pathways. On this course you will study along-side students from various healthcare disciplines, as well as being taught by experienced practitioners and researchers, enabling you to understand the importance of multidisciplinary teams, and helping you to develop your professional skills along the way to prepare you for future employment.

The theoretical knowledge learned in class is underpinned with integrated practical classes, in our dedicated clinical skills laboratories. This will enable you will be able put your theoretical knowledge of the diagnostic tests into practice, honing your clinical skills and practicing your patient centred care in a simulated environment.

In your final year, you will carry out an independent research project, supported by an experienced academics, to help you to develop key skills like critical thinking, problem-solving, and independent learning, while also fostering self-motivation and time management, as well as developing research and

laboratory skills and the art of scientific communication.

Although the focus will be either Cardiac or Respiratory Physiology, depending on your choice of specialist area, the academic provision will not be limited to these areas but will also cover the physiology and pathophysiology of the wider systems to provide an extensive knowledge base. This will ensure that you are ready for a variety of career pathways, such as fast-track routes into Medicine, Clinical Exercise Physiology or Physician Associate, as well as preparing you for career pathways that are related to your specialism, in research or NHS related training programmes, such as the Scientist Training programme, Graduate Diploma in Cardiac or Respiratory Physiology or the Echocardiography Training Programme, all of which are accredited courses by the National School for Healthcare Science, enabling you to register as a qualified practitioner.

Educational Aims of the Course:

Intakes:

September

Major Source of Funding:

Office for Students (OFS)

Tuition Fees:

Tuition fees are reviewed on an annual basis. The fees applicable to a particular academic year will be published on the University website.

Year	Status	Mode	Amount
2020/1	Home / EU	Full Time / Sandwich	£9250.00
2020/1	Overseas	Full Time / Sandwich	£12250.00
2020/1	H	Part Time	£3050.00
2020/1	Overseas	Part Time	£6125.00
2021/2	H	Full Time / Sandwich	£9250.00
2021/2	Overseas	Full Time / Sandwich	£13450.00
2021/2	H	Part Time	£3100.00
2022/3	H	Full Time / Sandwich	£9250.00
2022/3	Overseas	Full Time / Sandwich	£13950.00
2022/3	H	Part Time	£3120.00
2023/4	H	Full Time / Sandwich	£9250.00
2023/4	Overseas	Full Time / Sandwich	£14950.00
2023/4	H	Part Time	£4625
2024/5	H	Full Time / Sandwich	£9250.00
2024/5	Overseas	Full Time / Sandwich	£15450.00
2024/5	H	Part Time	£4625.00
2025/6	H	Full Time / Sandwich	£9535.00
2025/6	Overseas	Full Time / Sandwich	£17000.00
2025/6	H	Part Time	£4768.00
2026/7	H	Full Time / Sandwich	£9790.00
2026/7	Overseas	Full Time / Sandwich	£18700.00
2026/7	H	Part Time	£

PSRB:

None

Course Structure:

September (Full-time)

Full time and Sandwich Undergraduate Honours students normally study 120 credits per academic year; 60 credits semester 1 and 60 credits semester 2.

Part time students study alongside full time students. However, they do not study more than 80 credits in each academic calendar year.

Module	Title	Credits	Period	Type
4BM042	Molecular and Cell biology	30	SEM1	Core
4BM043	Introduction to Human Anatomy and Physiology	30	SEM2	Core
4BM049	Succeeding at University in Healthcare Science	30	YEAR	Core
4BM050	Scientific Basis of Cardiovascular Respiratory and Sleep Science	30	YEAR	Core

September (Full-time)

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Part time students study alongside full time students. However, they do not study more than 80 credits in each academic calendar year.

Module	Title	Credits	Period	Type
5BM100	Physiology and Pathophysiology	30	YEAR	Core
5BM088	Professional Development in Medical Sciences	30	YEAR	Core

September (Full-time)

Full time and Sandwich Undergraduate Honours students normally study 120 credits per academic year; 60 credits semester 1 and 60 credits semester 2.

Part time students study alongside full time students. However, they do not study more than 80 credits in each academic calendar year.

Module	Title	Credits	Period	Type
6BM082	Applied Physiology	30	YEAR	Core
6BM067	Research Project	30	YEAR	Core

Please note: Optional modules might not run every year, the course team will decide on an annual basis which options will be running, based on student demand and academic factors, to create the best learning experience.

Learning, Teaching and Assessment

Regulations Exemption:

Section 1.2.8 - Exemption to permit less than 33% differentiation between two named degree programmes, BSc (Hons) Healthcare Science (Physiological Sciences) and BSc (Hons) Medical Physiology and Diagnostics, in order to enable student transferrals and more specialisation at level 6 and, following Graduation, to enable the potential to complete a ‘top up’ qualification to gain equivalence and registration with the professional body (Academy for Healthcare Science) as a qualified practitioner.

Section 4.5.7 - Exemption permitting students to choose an alternative option module, rather than re-take the one they have failed, as the options have been aligned to final specialisms which students must choose (in either cardiac physiology or respiratory and sleep physiology) at Level 5 and Level 6.

Reference Points:

UK Quality Code for Higher Education

Qualifications and Credit Frameworks

Subject Benchmark Statements

University Policies and Regulations

Equality Act 2010: guidance - GOV.UK

Overview of Assessment:

As part of the course approval process, the course learning outcomes were mapped to each of the modules forming the diet of the programme of study. This process confirmed that all course learning outcomes can be met through successful completion of the modules. This mapping applies to the final award as well as to all of the intermediate awards.

Learning Outcomes	Modules
CERTHE01 Demonstrate knowledge of the underlying concepts and principles associated with your area(s) of study, and an ability to evaluate and interpret these within the context of that area of study	
CERTHE02 Demonstrate an ability to present, evaluate and interpret qualitative and quantitative data, in order to develop lines of argument and make sound judgements in accordance with basic theories and concepts of your subject(s) of study.	
CERTHE03 Evaluate the appropriateness of different approaches to solving problems related to your area(s) of study and/or work	
CERTHE04 Communicate the results of your study/work accurately and reliably, and with structured and coherent arguments	
CERTHE05 Demonstrate the qualities and transferable skills necessary for employment requiring the exercise of some personal responsibility	
DIPHE01 Demonstrate knowledge and critical understanding of the well-established principles of your area(s) of study, and of the way in which those principles have developed with an understanding of the limits of your knowledge, and how this influences analyses and interpretations based on that knowledge.	
DIPHE02 Demonstrate the ability to apply underlying concepts and principles outside the context in which they were first studied, including, where appropriate, the application of those principles in an employment context.	
DIPHE03 Demonstrate knowledge of the main methods of enquiry in the subject(s) relevant to the named award, and ability to evaluate critically the appropriateness of different approaches to solving problems in the field of study.	
DIPHE04 Use a range of established techniques to initiate and undertake critical analysis of information, and to propose solutions to problems arising from that analysis.	

Learning Outcomes	Modules
DIPHE05 Effectively communicate information, arguments and analysis in a variety of forms to specialist and non-specialist audiences, and deploy key techniques of the discipline effectively.	
DIPHE06 Demonstrate the qualities and transferable skills necessary for employment, requiring the exercise of personal responsibility and decision-making and undertake further training, developing existing skills and acquire new competences that will enable them to assume significant responsibility within organisations.	
BHONSN01 Critically evaluate and apply advanced scientific knowledge of normal anatomy and physiology to pathophysiological changes (Knowing).	
BHONSN02 Critically evaluate approaches to diagnostics, interventions and treatments within your specialism, to inform evidence-based decision-making and problem-solving (Knowing).	
BHONSN03 Design and conduct physiological investigations to assess human function, using a range of scientific methods, practical and research skills (Doing).	
BHONSN04 Critically analyse and interpret physiological and diagnostic data including appropriate reference to scientific literature, use of analytical tools, and awareness of the implications of normal and abnormal findings for human health and performance (Doing).	
BHONSN05 Demonstrate skills and attributes essential for lifelong learning with a potential for further development towards a professional career (Being).	
BHONSN06 Reflect upon historical, cultural, and global influences within science and technology promoting equality, diversity, and inclusivity in diagnostic and research practice (Being).	
BHONS01 Critically evaluate and apply advanced scientific knowledge of normal anatomy and physiology to pathophysiological changes (Knowing).	
BHONS02 Critically evaluate approaches to diagnostics, interventions and treatments within your specialism, to inform evidence-based decision-making and problem-solving (Knowing).	
BHONS03 Design and conduct physiological investigations to assess human function, using a range of scientific methods, practical and research skills (Doing).	
BHONS04 Critically analyse and interpret physiological and diagnostic data including appropriate reference to scientific literature, use of analytical tools, and awareness of the implications of normal and abnormal findings for human health and performance (Doing).	
BHONS05 Demonstrate skills and attributes essential for lifelong learning with a potential for further development towards a professional career (Being).	

Learning Outcomes	Modules
BHONS06 Reflect upon historical, cultural, and global influences within science and technology promoting equality, diversity, and inclusivity in diagnostic and research practice (Being).	

Teaching, Learning & Assessment Strategy/(Learning and Teaching):

Teaching on the Medical Physiology and Diagnostics course is designed to help you build your knowledge and confidence step by step. You'll begin with core concepts in human anatomy and physiology, and develop scientific and academic skills, before moving on to more advanced topics such as pathophysiology, diagnostics, and data interpretation. This gradual progression helps you feel prepared as the academic level increases, and ensures you have a strong foundation to build on throughout the course.

Your learning will take place through a blend of in-person and online activities. Face-to-face sessions, such as lectures, practical labs, seminars, and workshops will give you hands-on experience and opportunities to discuss ideas with staff and classmates. Online learning supports this by providing interactive materials, recorded sessions, quizzes, and digital resources you can access at any time. These two modes are designed to complement each other and offer flexibility, so you can study in a way that suits your needs and commitments.

Throughout the course, you'll be supported to develop the academic and digital skills needed for university study and future employment. Early modules introduce you to research skills, scientific writing, referencing, and data handling. You'll also learn how to work effectively in groups, manage independent study, and use digital platforms confidently. Additional support, such as library workshops, academic skills sessions, and digital learning guidance, is available whenever you need it.

Professional and practice-based learning is woven into your academic experience. With employer-linked activities, simulated clinical tasks, or case-based work that reflects real diagnostic and healthcare scenarios. These experiences help you apply your theoretical knowledge in practical settings and understand how physiology and diagnostics contribute to patient care.

Digital fluency is an important part of the course. You'll use digital tools for research, data analysis, and collaboration, and you'll be encouraged to engage with technology ethically and responsibly. This includes understanding the role of artificial intelligence and data security in modern healthcare, preparing you for digitally enhanced professional environments.

Assessment Methods/Assessments:

Assessment on the Medical Physiology and Diagnostics course is designed to help you learn, build confidence, and develop the skills you'll need for your future career. You'll experience a balanced mix of tasks, such as case-based analyses, lab reports, written essays, presentations, examinations and online quizzes, so you can show what you know in different ways. These assessments are spaced across the year to help you manage your workload effectively.

To support your progress, you'll have regular opportunities to practise before completing your final assessments. This might include submitting a draft section of a report, trying out sample exam questions, completing short online activities, or taking part in peer-feedback sessions. These formative tasks allow you to experiment, learn from mistakes, and apply feedback from tutors without the pressure of grades.

Your assessments are designed to help you develop key intellectual and professional skills. You'll learn

how to analyse scientific data, evaluate evidence, solve problems, and build well-reasoned arguments, skills that are essential in science and in a clinical setting. Many assessments involve applying your knowledge to real-life scenarios or interpreting patient-focused case studies, helping you see how your learning connects to practice.
We aim to make all assessments inclusive and accessible. You'll receive clear instructions, marking criteria, and when possible, examples to help you understand what is expected. If you have specific learning needs, support and reasonable adjustments are available to ensure you can demonstrate your abilities fully.

Where possible, you'll also have the chance to personalise your assessment experience. You may be able to choose a topic, select a case study, or focus on an area of clinical practice that interests you. This allows you to shape your learning and build skills that align with your goals and career ambitions.

Further Information for Student:

We understand that students join with different levels of prior knowledge, so your first-year modules are designed to bring everyone to a shared foundation in scientific principles, preparing you to progress confidently to Level 5. Support is built into your learning experience, especially at level 4, but if you need additional support, with academic writing, referencing, critical thinking, or simply knowing where to go for advice, there are many avenues available.

ASK@WLV is a first point of contact for general enquiries, while the library's 'Skills for Learning' workshops help you develop key academic skills. You'll also have a Student Success Coach to guide your personal and academic development and a Personal Tutor who will provide ongoing academic and pastoral guidance. The course team is with you every step of the way! If your studies are affected by health or wellbeing concerns, the Support to Study process ensures a proactive, compassionate approach to help you continue successfully.

Learning is interactive and engaging, combining lectures, tutorials, case studies, lab practicals, workshops and support sessions. Early formative activities such as quizzes, online tasks, and group work help you prepare for assessments. You'll receive clear briefs, guidance, and timely, constructive feedback to highlight your strengths, identify areas for improvement, and give clear advice on how to enhance your performance in future assessments to build your skills and confidence.

Your voice matters! It is central to shaping the ongoing development of the course. We actively seek student feedback through module evaluations, course reps and Student Voice activities and regular meetings with the course team helping shape teaching, assessment, and support. This collaborative approach ensures that the course remains relevant, inclusive, and responsive to your needs as learners and future professional.

The University provides a wide range of academic and pastoral support to help students succeed in their studies and personal development. This includes access to the Library and Skills for Learning service, student success coaching for students in their early stages, and tailored advice from the Careers and Enterprise teams. Students also benefit from 24/7 wellbeing support through WLV Student Life Connect, pastoral care via the Multi-faith Chaplaincy, and assistance from the Mental Health and Wellbeing team. Those living in university accommodation have additional access to Residential Life support, and all students can engage with the Students' Union for advocacy, societies, and further peer-led services.

Currency:

The Medical Physiology and Diagnostics course is designed to stay current with the rapidly evolving fields of Healthcare Science. We have built in flexibility to allow for your learning to be shaped by a curriculum that is continuously reviewed against the latest research, emerging clinical technologies, and contemporary issues in healthcare science. Because the programme is taught by practising clinicians and active researchers, you can be confident that the breadth of content reflects up-to-date industry

expectations and best practice. Modules are refreshed regularly, and teaching staff bring cutting-edge insights directly into the classroom and laboratory.

Throughout the course, you are supported to develop strong inquiry skills and to engage directly with research. You will work with real datasets; critique published studies and explore research. Opportunities to design your own investigations, particularly in the final year project, help you develop as an independent, critical thinker.

The course prepares you to apply your knowledge creatively to real-world healthcare challenges, including those linked to sustainability, ethical practice, and social responsibility. Case-based learning, simulations, and problem-solving activities encourage you to consider the wider impact of clinical decisions on patients, services, and global health systems.

Our curriculum is deliberately designed to help you develop the University’s Graduate Attributes. You will become Knowledgeable and Digitally Fluent through hands-on experience with diagnostic equipment and digital tools. Activities focusing on professionalism, teamwork, and reflective practice help you grow as a Professional. Discussions around global health, equity, and evidence-based care support your development as a Global Citizen.

Finally, collaboration is embedded throughout the programme. You will learn alongside students from other health-related disciplines, and be taught by a diverse team of academics, and build the confidence to continue learning throughout your career. By the time you graduate, you will be well-equipped to adapt to future developments in science and to contribute meaningfully to your chosen profession.

Personalisation Opportunities:

The Medical Physiology and Diagnostics course is designed to help you shape your learning experience around your interests and career ambitions. Your learning will be active and interactive, with opportunities for group discussion and collaboration where we will relate lessons to real-world applications and incorporate technology to make learning more dynamic, with online quizzes and videos, as well as self-directed study to allow you to control your learning at a pace and style to fit you. Many modules will include flexible activities and assessments, for example, selecting case studies that reflect your interests or focusing projects on conditions that enthuse you. Your learning will be supported with material from classroom sessions as well as on Canvas (our virtual learning environment).

In level 4 you will study both cardiovascular and respiratory and sleep physiology, choosing your specialism as you progress to level 5 and specialising in one area to map with your career aspirations. In your final year research project you will choose a topic to investigate that aligns with your academic passions or professional goals. You will be supported in making these choices by your Personal Tutor, course team and project supervisor.

Career support is built into the course, with a dedicated faculty advisor from the university’s Careers, Enterprise and The Workplace team, supporting you with job applications, CV writing and interview preparation, as well as a job searching.

Inclusivity is central to your learning experience. The course integrates diverse perspectives and examples to reflect the global and multicultural nature of healthcare practice. Your own experiences and identity are valued in classroom discussions, assessments, and group activities, helping to make learning more relevant and meaningful.

You will also be encouraged to reflect on your personal and academic growth through reflective journals, tutorials, and portfolio activities. These reflections help you recognise your strengths, set goals, and use academic guidance to shape your development throughout the course and beyond.

Employability in the Curriculum/Employability and Professional Development:

Your professional development is central to this course, and you will be supported throughout your studies to explore career pathways and build the skills needed for a successful future following the successful completion of your degree in Medical Physiology and Diagnostics. From the start of the programme, you will be introduced to a wide range of professional roles within healthcare and related industries. You will also have opportunities to take part in placements, employer-led sessions, and projects that help you understand the real-world expectations of clinical and scientific practice.

As you progress, you will work on developing your professional identity by building a portfolio of experiences, reflections, and competencies that you can take forward into employment or postgraduate study. Practical laboratory work, clinical skills sessions, and research activities contribute directly to this portfolio, helping you showcase the breadth of your abilities.

Professional standards and employer expectations are embedded throughout the course. Teaching and assessments draw on guidance from experienced academics and clinicians reflecting the behaviours, values, and technical competencies required in contemporary healthcare settings. This ensures you develop both confidence and credibility as a future practitioner.

You will also take part in activities that support your employability, including CV writing workshops, interview practice, networking events, and sessions designed to help you articulate your strengths. Regular feedback from tutors, visiting lecturers, and project supervisors gives you the chance to reflect on your progress and set meaningful development goals.

When choosing modules or planning your final-year project, you will receive guidance to help you make informed decisions that align with your interests and career aspirations. Academic staff and specialist careers advisers are available to support you in considering different specialisms and planning your next steps.

By engaging fully with these opportunities, you will graduate with a clear sense of direction, a strong professional identity, and the skills needed to thrive in your chosen career.